



Micro Commercial Components

Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

1N4148

500mW High Speed Switching Diode 100 Volt

Features

- High Reliability
- Low Current Leakage
- Metalurgically Bonded Construction
- Marking : Cathode band and type number

Maximum Ratings

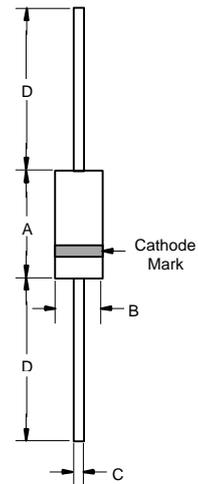
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 350K/W Junction To Ambient
 Test Conditions: I = 4mm T_L = constant

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V _R	75V	
Breakdown Voltage	V _{BR}	100V	I _R =100 μA
Average Forward Current	I _O	150mA	
Power Dissipation	P _{TOT}	500mW	
Junction Temperature	T _J	175°C	
Peak Forward Surge Current	I _{FSM}	2.0A	t _p = 1.0 μs
Maximum Instantaneous Forward Voltage	V _F	1.0V	I _{FM} = 10mA
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	25nA 5.0μA 50μA	V _R =20V; T _J = 25°C V _R =75V; T _J = 25°C V _R =20V; T _J =150°C
Maximum Junction Capacitance	C _J	4.0pF	Measured at 1.0MHz, V _R =0V
Maximum Reverse Recovery Time	T _{rr}	4.0ns	I _F =10mA; V _R = 6V R _L =100Ω

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

DO-35



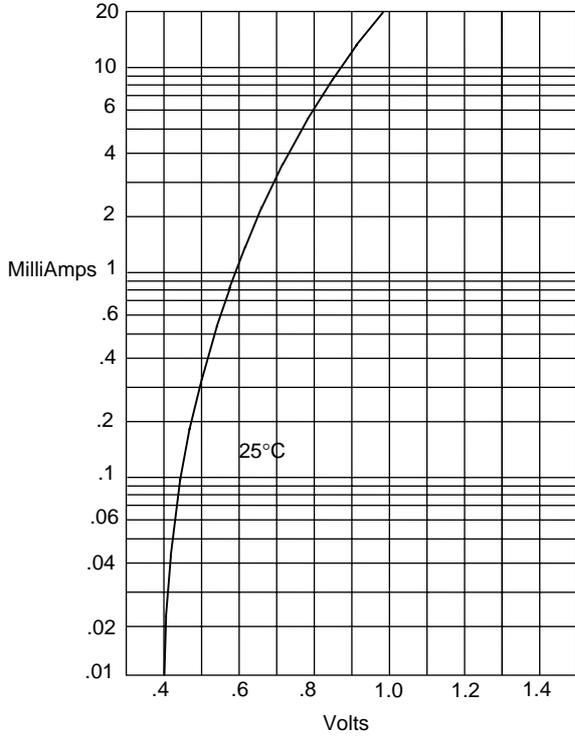
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

1N4148



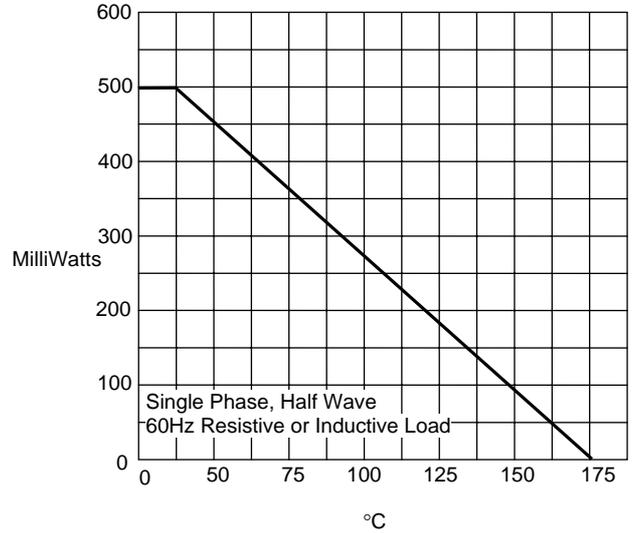
Micro Commercial Components

Figure 1
Typical Forward Characteristics



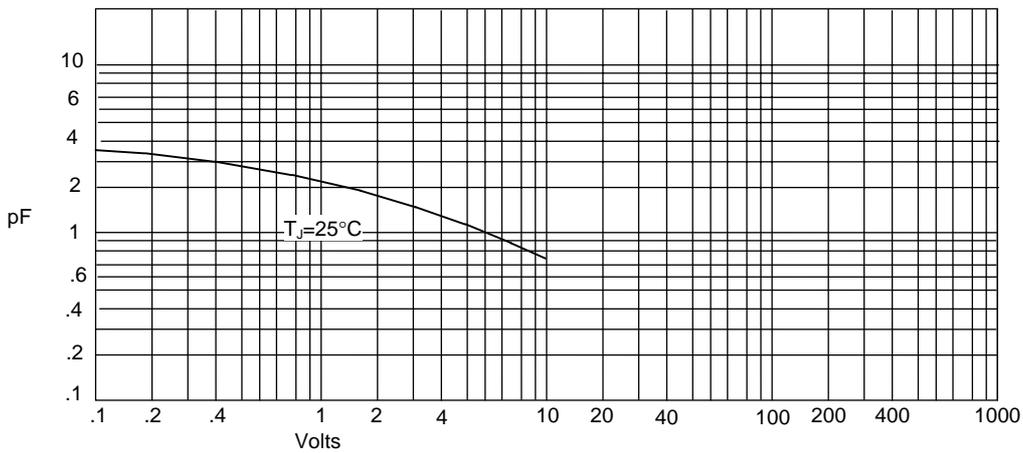
Instantaneous Forward Current - MilliAmperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus
Ambient Temperature - °C

Figure 3
Junction Capacitance



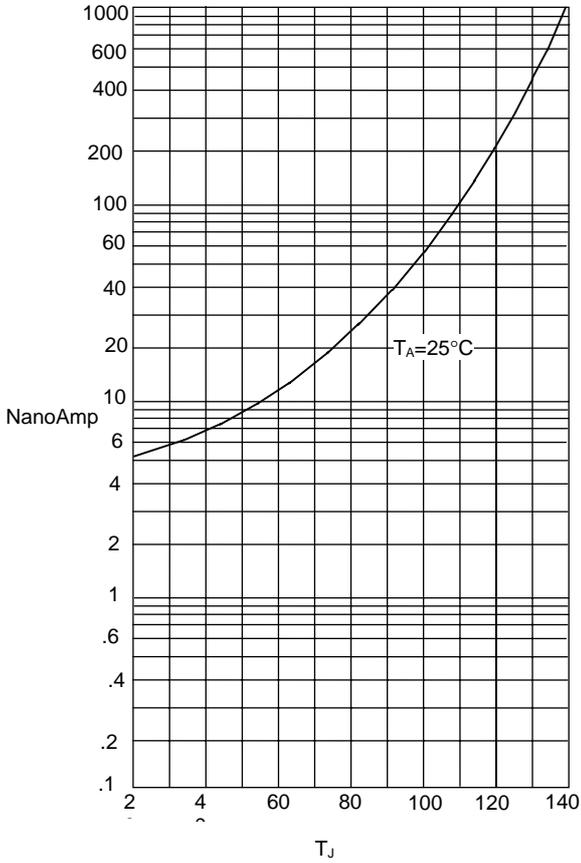
Junction Capacitance - pF versus
Reverse Voltage - Volts

1N4148



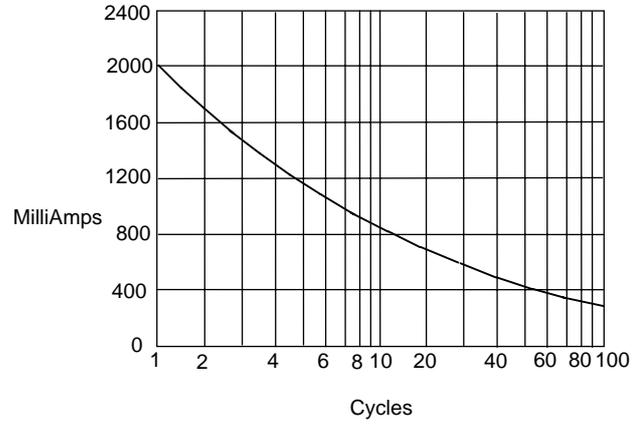
Micro Commercial Components

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus Junction Temperature - °C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles



TM

Micro Commercial Components

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

*****APPLICATIONS DISCLAIMER*****

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.